

Direct Reading Pocket Dosimeter



- ⇒ Direct Read Pocket Dosimeters are rugged, precision instruments about the size of a pocket fountain pen, which are used to measure accumulative doses or quantities of gamma & X-ray radiation. A metal clip is used to attach the dosimeter to an individual's pocket or to any available object in an area to be monitored for total radiation exposure.
- ⇒ It is pocket-size, conductive-fiber electroscope with an ion chamber for detecting and indication integrated exposure to gamma and x-radiation. It has a thin wall which permits the penetration and detection of radiation.
- ⇒ If your Dosimeter is going to be used in harsh conditions where scratching of the lens is a concern we recommend a synthetic sapphire window to protect the lens even in the toughest of conditions.

Range and Model Information

Dosimeter Range	Model
0-200 mR	138
0-200 mR/RM	138 Rate Meter
0-2 mSv	138-S
0-500 mR	500
0-5 mSv	500-S
0-1000 mR	715
0-2 R	720
0-5 R	725
0-20 R	730
0-100 R	740
0-200 R	742
0-600 R	746
Rate Meter	RM

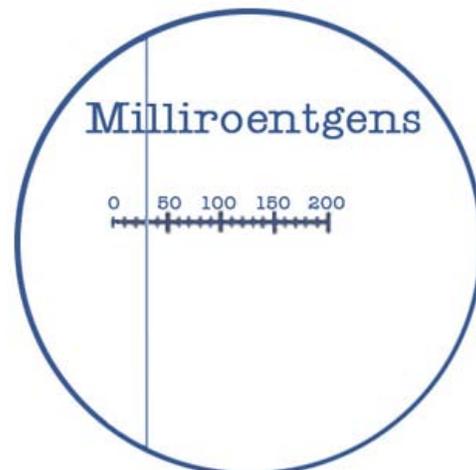
The model 138, 138-S, 500 and 500-S are available with a protective hard window which prevents the lens from being scratched. Other models can be special ordered with this feature.

How does the Dosimeter work?

Reading a Dosimeter

The way we "read" a dosimeter is to just point it at a light source so that we can look through it and see the scale. The conductive fiber moves across a very clear well marked scale that produces the reading.

Direct-Reading dosimeters use an extremely sensitive fiber electrometer type voltmeter and a small volume of air to measure the total amount of radiation to which the instrument has been exposed. A reading may be made at any time by merely looking at a source of light through the eyepiece end of the instrument. The reading here is at zero. This particular dosimeter is the 200 mR model.



Direct Reading (Pocket) Dosimeter

Specifications:

Radiation Detected:	Gamma and X-ray from 16 KeV to 6 MeV
Ranges:	0 - 200 mR to 0 - 600 R
Energy Response:	See Response curve below
Detector:	Fiber electrometer mounted in an electrically conducting plastic ion chamber
Detector Housing:	Very low permeability plastics - hermetically sealed
Accuracy:	Within + or - 10% of true exposure
Rate Response:	Dose rate independent for gamma and x-radiation
Electrical Leakage:	Less than 0.5% of full scale for 24 hours at 50 degrees C
Temperature Range:	-20 degrees C to 50 degrees C
Relative Humidity:	Up to 90%
Dimensions:	Length 4.5 in. (12.4cm), Diameter: 0.6in (1.5cm)
Weight:	1.0 oz. (25 grams)
Finish:	Barrell and end caps: Natural matte black
Clips:	Metal clips
Warranty:	2 year limited warranty

